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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: J. H. Labuschagne	
Serial No.: 10/09/819,194	**Group No.: 3637**
Filed: March 28, 2001	**Examiner: A, Phi Dieu Tran**
For: PORTABLE FACILITY AND PROCESS FOR RECONDITIONING ANTIFRICTION BEARINGS	
Docket No. TIMK 7938US	

St. Louis, Missouri
Date: November 30, 2006

Mail Stop Appeal Brief - Patents
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TRANSMITTAL OF SECOND APPEALLANT BRIEF (PATENT APPLICATION 37 CFR 192)

1. Transmitted herewith is the SECOND APPELLANT'S BRIEF in this application with respect to the Notice of Appeal filed on *October 6, 2006.*

2. STATUS OF APPLICANT

This application is on behalf of:
- ☒ other than a small entity
- ☐ small entity

Small entity status:
- ☐ is claimed.
- ☒ is NOT claimed.

3. FEE FOR FILING SECOND APPEALLANT BRIEF

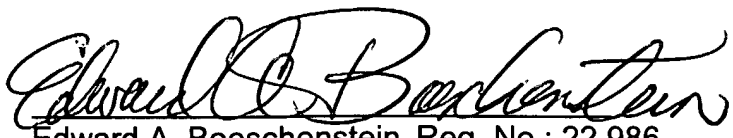
NONE – paid with first Appellant's Brief

5. FEE DEFICIENCY

The Commissioner is hereby authorized to charge any additional fees or credit overpayment under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account 162201.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop Appeal Brief - Patents, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on November 30, 2006.

Edward A. Boeschenstein, Reg. No. 22,986



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PATENT

Practitioner's Docket No. TIMK 7938US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: J. H. Labuschagne
Application No.: 09/819,194 **Filed:** March 28, 2001
For: PORTABLE FACILITY AND PROCESS FOR RECONDITIONING ANTIFRICTION BEARINGS
Art Unit: 3637 **Examiner:** A, PHI DIEU TRAN

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SECOND APPELLANT'S BRIEF

On October 6, 2006, applicant, who is the appellant here, filed a Notice of Appeal in the above-designated application to have the Board of Appeals and Interferences review the decision of the examiner, endorsed by the supervisory patent examiner, rejecting all claims – namely, claims 1-12 and 19-29 – of the application. Applicant in furtherance of that appeal and pursuant to 37 CFR 41.39 files this brief.

Applicant does not with this brief submit the $500 prescribed by 37 CFR 41.20(b)(1), inasmuch as that fee has already been paid in connection with an earlier Appellant's Brief which the examiner elected not to answer. The Patent Office is authorized to charge any deficiency for this brief against Deposit Account 162201.

The claims on appeal appear in the Claims Appendix of this brief.

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Edward A. Boeschenstein. No. 22,986

Declarations of Samuel Williams and Rudolf Karich appear in the Evidence Appendix of this brief.

I REAL PARTY IN INTEREST

The Timken Company, a corporation of the State of Ohio with principal offices in Canton, Ohio, represents the real party in interest in this appeal. Applicant formally transferred the invention and patent application to Timken in a document recorded in the U.S. Patent Office on March 28, 2001, at reel 011643, frame 0460. Timken manufactures antifriction bearings, including tapered roller bearings used on the axles of railcars and locomotives.

II RELATED APPEALS AND INTERFERENCES

Applicant knows of no appeals, interferences or judicial proceeding which may be related to, or directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal, and the same holds true for Timken and the undersigned legal representative of applicant and Timken.

III STATUS OF CLAIMS

Applicant filed the application with claims 1-18. The examiner withdrew claims 13-18 from consideration as a consequence of a requirement for restriction and a subsequent election. In two amendments that followed applicant canceled withdrawn claims 13-18 and introduced claims 19-29 into the application. All claims currently in the application –namely, claims 1-12 and 19-29 – stand rejected in an official action that gave applicant the option to appeal in lieu of otherwise responding to its rejection of the claims. Applicant elected to appeal and again pursues this appeal as to all of claims 1-12 and 19-29.

IV STATUS OF AMENDMENTS

The application contains no amendments filed after the final rejection in the official action of October 11, 2005, or the subsequent official action of July 6, 2006, rendered in lieu of answering appellant's earlier brief.

V SUMMARY OF THE CLAIMED SUBJECT MATTER

All claims seek to protect a portable facility (A; Figs. 3 & 4; p 4, line 2) for reconditioning an antifriction bearing (B, Fig. 2; p 4 line 2), such as a tapered roller bearing used on a journal (J; Fig. 1; p 4, line 9) of a railcar axle. The facility includes an enclosure (50; Fig. 3; p 7, lines 6-8) that is portable in the sense that it can be moved by a transport vehicle.

According to independent claim 1, the enclosure contains means for inspecting components of the bearing (92; Fig. 4; p 11, lines 1-9) and means for repairing defects in components of the bearing (94; 114; Fig. 4; p14, lines 1, 2, 6; p 12, lines 19-23). Claim 1 also requires that the enclosure contains spare bearing components (124; Fig. 4; p 16, line 5) particularly spare races (20 or 22; Fig. 2; p 5, line 2) and spare rolling elements (24; Fig. 2; p 5, line 3).

Independent claim 8 specifies that the bearing is a tapered roller bearing having a cup (20; Fig. 2; p. 5, line 2), a cone (22; Fig. 2; p 5, line 2), tapered rollers (24; Fig. 2; p 5, line 3), and a cage (26; Fig. 2; p 5, line 4) that unites the cone and rollers into a cone assembly (28; Fig. 2; p 5, line 8). The enclosure contains stations (90-98, 102-118; Fig. 4; p 10, lines 16-23; p 11, lines 1 & 2), one of which has means for inspecting the cone assembly (92; Fig. 4; p 11, lines 17-22; p 12, lines 1-9), another of which has means for inspecting and repairing the raceway on the cup (94; Fig. 4; p 14, lines 1, 2);

still another of which has means for opening the cage to release the rollers normally confined by it (112; Fig. 4; p 12, lines 13-15), and yet another of which has means for repairing the raceway of the cone (114; Fig. 4; p 12, lines 19-23). Also present in the enclosure is a spare cage (26; Fig. 4; p 16 line 8) for replacing an opened cage and means at another station for closing that cage about rollers on the cone (118; Fig. 4; p 13, lines 9-13)

According to independent claim 20, the facility repairs railroad bearings stripped from the journals (J; Fig. 1; p 4, line 9) of railcar axles. The facility has a washer (86; Figs. 3, 4; p 10 line 8) for removing grease from the races and rolling elements of the bearing. It also has within the enclosure equipment (92, 94; Fig. 4, p 11, line 17-23; p 12, lines 1-9, p 13, line 21) for inspecting the races, and equipment (88, 90, 94, 112-118; Fig. 4; p 10; line 16, p 12, lines 19-23; p 13, lines 1, 2, 7-13) for repairing the bearing, all in addition to spare (124; Fig. 4; p 16, line 5) races and rolling elements.

Dependent claims 2 and 9 call for means for lubricating the bearing (98, 122; Fig. 4; p 15, line 12).

Dependent claims 3-5 call for means for cleaning the bearing, while dependent claim 12 calls for means for removing grease from the bearing (86; Fig. 2, 4; p 10, lines 8-15)

Dependent claim 10 calls for means for measuring end play in the bearing (96; Fig. 4; p 14, lines 9-23)

Dependent claim 19 calls for means for opening the cage of a bearing assembly (112; Fig. 4; p 12, line 13) and means for closing a cage around rolling elements to retain them (118; Fig. 4; p 13, lines 9-13).

Dependent claims 21-29 do not contain means-plus-function limitations. Claim 22 calls for a fixture that shines light to effect an inspection of an inner race (92; Fig. 4; p 11, lines 17-22; p 12, line 1, 2), while claim 23 calls for a gauge for measuring the bore of an inner race (92; Fig. 4; p 12, lines 3-7).

Claim 24 calls for a press for opening a cage (112; Fig. 4; p 12, lines 13-16) and a press for plastically deforming a replacement cage to capture rolling elements (118; Fig. 4; p 13, lines 9-13).

Claim 29 specifies that the enclosure of the portable facility is on a railcar (p 4, line 5).

VI GROUNDS FOR REJECTION TO BE VIEWED ON APPEAL

Whether or not U.S. patent 3,308,845 (Bellas), when combined with various secondary references, renders obvious applicant's portable facility for reconditioning bearings, all as set forth in claims 1-12 and 19-29. Would the differences between the Bellas patent together with the secondary references and applicant's portable facility as set forth in the claims have been obvious to one of ordinary skill in the art within the meaning of 35 USC 103?

VII ARGUMENT

Antifriction bearings find widespread use in machinery to reduce friction between rotating parts. The basic bearing includes inner and outer races and rolling elements organized in a circular row between the races. They roll along raceways on the races. While durable, the bearings do require inspection from time to time and reconditioning, and this holds particularly true for antifriction bearings, such as those on the journals of railcar axles, that operate in hostile environments. Heretofore, it has been the practice

to ship bearings from a facility at which they are removed to a remote facility where they are reconditioned. This practice keeps bearings out of service for extended times and requires procedures for keeping track of such bearings. The invention of the application here under appeal addresses that problem, in that it provides a portable facility for reconditioning antifriction bearings. The facility enables its operator to perform cleaning, inspections, repairing, including substitution of replacement parts, and relubricating of antifiction bearings basically anywhere that is accessible to a transport vehicle on which the facility is carried. The examiner did not cite any reference pertaining to reconditioning antifricton bearings at a portable facility, but that did not prevent him from rejecting the claims in the application. The application has undergone a tortured prosecution involving ten official actions, some seemingly contradictory, and nine responses. A brief history of the prosecution seems to be in order.

After a requirement of restriction and a response, the examiner rejected all claims under 35 USC 102 for failing to describe anything that differed from U.S. patent 4,613,476 (Montegerard) which pertained to a Mobile Band Instrument Repair Shop. Applicant responded with Amendment A that amended the claims slightly and argued that the band instrument repair shop of the Montegerard patent would not inspire anyone to develop a portable facility for reconditioning bearings. The examiner adhered to his position and finally rejected the claims, whereupon applicant filed a Request for Continued Examination along with Amendment C. It introduced means-plus-function limitations into the original claims and also included several new claims that called for spare bearing parts in the enclosure of the portable facility. The examiner rejected the means claims, contending that they described a portable facility that did not differ from

that which was set forth in the Bellas patent and thus failed to meet the requirements of with 35 USC 102, but the examiner allowed the spare parts claims. Applicant submitted Amendment D that introduced the spare parts limitation into all claims. The examiner responded with a rejection of all of the claims for reciting a portable facility that was obvious in view of U.S. patent 5,226, 971 (Fogal), U.S. patent 6,168,676 (Seguin), and U.S. patent 5,876,018 (Crisp). Applicant argued that the teachings of the three patents were much too diverse to combine into anything, and anyway they did not meet the limitations of the claims. The examiner allowed the claims, save for a technical issue under 35 USC 112. Applicant addressed that issue in Amendment F and waited for a notice of allowance. It did not arrive. Instead, the examiner withdrew the allowance and rejected all claims for presenting an invention that he considered to be obvious in view of the previously cited Bellas patent. After an unsuccessful argument that the Bellas patent really did not pertain – an argument supported by a declaration from one skilled in the art of reconditioning bearings – applicant lodged an appeal and filed an Appellant's Brief. In lieu of answering the brief, the examiner produced another official action - the tenth - rejecting each of the claims for setting forth an invention that he considered to be obvious in view of the Bellas patent, combined one ore more secondary references - namely, a commentary on antifriction bearings by Rich Diegle, U.S. patent 3,139,748 (Strum), U.S. patent 2,274,964 (James), U.S. patent 2,034,507 (Colson), U.S. patent 5,165,169 (Boyce), U.S. patent 2,594,810 (Schand), U.S. patent 3,580,059 (Dalton), U.S. patent 5,588,752 (Fetty), U.S. patent 3,402,349 (Parker), and U.S. patent 1,276,013 (Beach).

All of the claims on appeal are directed to a portable facility for reconditioning an antifriction bearing – a bearing that by its very nature comprises a multitude of components including races and rolling elements that roll along raceways on the races. One would expect a rejection of such claims to be founded on prior art relating to bearings. But here the examiner relies primarily on the Bellas patent which discloses a Mobile Service Station Unit for performing minor services and repairs on automobiles. The services include refueling, lubrication, oil changes, state safety inspections, whereas the repairs include replacing batteries, spark plugs, tires, and windshield wiper blades (col. 1, lines 49-55). The unit includes storage compartments that contain maintenance tools and spare parts required for the repairs and containers for lubricants, gasoline and antifreeze (col. 4, lines 23-36). It also includes, within its interior, a lift for elevating an automobile to facilitate certain services and repairs. Whatever it has, the Bellas unit does not have equipment for reconditioning bearings, nor does it have spare bearing components. Indeed, the Bellas patent has nothing whatsoever to do with bearings.

To be sure, the examiner finds within the mobile service station unit of the Bellas patent means for lubricating bearings (col. 6, line 29), but all that so-called means amounts to is a working space for greasing and replacing automotive wheel bearings. The examiner also finds within the enclosure means for cleaning in the form of a water compartment 22, but the water in the compartment 22 no doubt is for diluting antifreeze. Whatever its intended use, the patent does not reveal it, other than to mention that the compartment 22 holds enough water to allot two gallons to each automobile serviced. This does not suggest a means for cleaning a bearing as some of the claims require.

Then the examiner identifies within the enclosure of the Bellas unit various stations. The station identified by the numeral 67 is really a fluorescent light, whereas the station identified by the numeral 68 is really an electrical outlet. Numeral 39, which is supposed to be a station, is really a battery charger, while so-called station 38 amounts to nothing more than empty cans. Another so-called station, represented by the numeral 35, is a storage compartment used to store tires, wiper blades, spark plugs, antifreeze, headlights and other small replacement automobile parts. All of this does not suggest an enclosure having multiple stations at which various service procedures are performed, much less procedures for reconditioning an antifriction bearing as the claims require.

Indeed, to find the equipment required to perform the reconditioning, the examiner turns to the secondary references, but the application never contended that the equipment within the portable enclosure was anything but conventional. In this regard, see the first full paragraph on page 9 of the application. The invention resides in organizing the equipment in a portable enclosure - and some of the equipment outside the enclosure as well. The Bellas patent has nothing whatsoever to do with reconditioning bearings, so one having ordinary skill in the art of reconditioning bearings would not turn to it for inspiration when dealing with reconditioning bearings. Rudolf Karich, who is knowledgeable in the art of reconditioning bearings, confirmed that.

Mr. Karich, after graduating with a degree in mechanical engineering, in 1967 entered the employ of The Timken Company, a large manufacturer of antifriction bearings. In 1977 his responsibilities turned to reconditioning the bearings used on journals of railcar axles and has remained ever since. His responsibilities now involve

sales of new railroad bearings and reconditioning services. He defines a person having ordinary skill in the art as one owning a technical degree from a university in one of the mechanical disciplines and having several years experience in reconditioning antifriction bearings. He has these credentials. Mr. Karich does not believe that a person skilled in the art would turn to a mobile service station, such as disclosed in the Bellas patent, for inspiration in connection with antifriction bearings or the reconditioning of them. He considers automotive service stations and the manufacture and reconditioning of antifriction bearings to be unrelated fields of endeavor. He goes on to observe that the portable facility set forth in the claims on appeal would not be obvious to one of ordinary skill in the art.

Incidentally, in connection with an earlier rejection of claims under 35 USC 102 for failure to set forth anything different from the Mobile Band Instrument Repair Shop of the Montgerard patent, applicant, sensing a further rejection based on obviousness under 35 USC 103, submitted the declaration of Samuel R. Williams, an individual also knowledgeable in the field of bearings. He observed that antifriction bearings and band instruments are unrelated technologies. Moreover, he did not see band instruments or repair facilities for them in the field of endeavor for one seeking to develop a repair facilities for antifriction bearings. Furthermore, he did not believe that a repair facility for band instruments would logically commend itself to the attention of one considering the repair of antifriction bearings. Mr. Williams also provides a definition of an antifriction bearing, if indeed one is necessary.

References qualify as prior art suitable for sustaining a rejection under 35 USC 103 only when analogous to the invention set for in the claims under consideration. In re

Clay, USPQ 2d 1058, 1060 (Fed. Cir. 1992). In order for a reference to be analogous so that the Patent Office may rely on it as a basis for rejection, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which applicant was concerned. In re Oetiker, 24 USPQ 2d 1443, 1445 (Fed. Cir. 1992); MEPEP 2141.01(a).

Considering the first factor, the field of endeavor, servicing automobiles, as would a corner service station, which is the field of endeavor for the Bellas patent, differs markedly from reconditioning antifriction bearings, which is the field of endeavor to which the claims on appeal pertain. Automobiles are heavy transportation vehicles that require specialized equipment, such as lifts, to service. Antifriction bearings are much smaller and lighter, most even light enough to be moved about manually. Moreover, a facility that specializes in minor services and repairs, as does the unit of the Bellas patent, requires personnel of relatively low skill level to operate it. Indeed, some of the services, such as refueling, lubricating, oil changes, and installing new spark plugs and windshield wipers can be and are regularly performed by ordinary individuals at their homes. Anyone can find the components that are replaced at the Bellas unit in retail outlets. To a large measure these components are generic and interchangeable among vehicles of different manufacturers. Contrast that with antifriction bearings which require specialized skills and knowledge to service, particularly as to tolerances and inspection and repair procedures. Moreover, antifriction bearings have many components unique to specific manufacturers with little interchangeability between the components of such manufacturers. This requires support from the manufacturers. While reconditioning bearings in general is an endeavor detached from service stations,

reconditioning bearings for railcars and locomotives is even more detached, and claims 20-29 are directed to a facility for reconditioning railroad bearings.

Insofar as the other factor, the pertinency to the problem solved, is concerned, the mobile service station of the Bellas patent only performs routine services, such as oil and antifreeze changes and grease lubrication, and minor repairs, such as replacing spark plugs, tires and wiper blades (col. 1, lines 59-55), all of which can be performed by individuals having relatively little training and low levels of skill. To recondition a bearing, on the other hand, requires a complete disassembly of the bearing and often replacement of defective components. It also requires a knowledge of tolerances as to mating parts and the capacity to detect damage in raceways and rolling elements and then to address such damage. Minor servicing in the context of automobiles and total disassembly and reassembly in the context of antifriction bearings differ significantly.

Two individuals having skill in the art pertaining to antifriction bearings – namely, Rudolf Karich and Samuel Williams – have disputed the pertinency of the prior art chosen by the examiner to reject claims in the application. The examiner rejected the claims anyway.

Apart from that, an examiner when rejecting a patent claim for obviousness under 35 USC 103 bears the initial burden of factually supporting any prima facie conclusion of obviousness. MPEP 2142. First, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. Secondly, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. MPEP 2143.

The Bellas patent mentions bearings in only the most casual context of lubricating and replacing them (col. 6, line 29), so it is inconceivable that the patent suggests reconditioning bearings. With regard to general knowledge in the art, bearings have been traditionally reconditioned at fixed locations, so that concept would strongly influence one having ordinary skill in the art. Such a person, even if he recognized that automobiles could be serviced with a mobile unit, would not translate the concept of minor automotive repairs into reconditioning bearings with a mobile unit. Indeed, the motivation, if there is any, comes from hindsight. To imbue one of ordinary skill in the art with knowledge of an invention, when no prior art reference or references suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome where that which only the inventor taught is used against its teacher. In re Zurko, 42 USPQ 2d, 1476, 1479 (Fed. Cir. 1997).

The equipment set forth in the Bellas patent enables one to service and make minor repairs on automobiles, but not bearings. One of ordinary skill having the equipment of the Bellas patent available would not expect any success in reconditioning bearings.

CONCLUSION

In view of the foregoing, reversal of the rejection of all claims on appeal – namely, claims 1-12 and 19-29 – is respectfully requested.

Respectfully Submitted,

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VIII CLAIMS APPENDIX

Applicant presents the following claims in this appeal:

1. A portable facility for reconditioning an antifriction bearing having components including a race provided with a raceway and rolling elements that roll along the raceway, said facility comprising: an enclosure that is portable in the sense that it can be moved by a transport vehicle; means within the enclosure for inspecting components of the bearing; more means within the enclosure for repairing defects in components of the bearing; and spare races and rolling elements located within the enclosure to replace damaged races and rolling elements.

2. A portable facility according to claim 1 and further comprising means within the enclosure for lubricating the bearing.

3. A portable facility according to claim 2 and further comprising means for cleaning the bearing.

4. A portable facility according to claim 3 wherein the means for cleaning the bearing is located outside the enclosure.

5. A portable facility according to claim 4 wherein the enclosure has at least one end through which access to the interior of the enclosure is obtained, and further comprising a deck at said one end of the enclosure, the means for cleaning the bearing being on the deck.

6. A portable facility according to claim 2 wherein the enclosure contains stations at which the means for inspecting, repairing defects, and lubricating the bearings are located; wherein the enclosure has side walls and the stations are located

along the side walls; and wherein a center aisle separates the stations along each side wall.

7. A portable facility according to claim 1 wherein the enclosure has side walls, ends through which access to the interior of the enclosure is obtained, a roof which extends between the side walls and over the interior of the enclosure, and doors attached to the side walls for closing the ends of the enclosure.

8. A portable facility for reconditioning a tapered roller bearing including a cup having a tapered raceway that is presented inwardly, a cone having a tapered raceway that is presented outwardly toward the raceway of the cup, tapered rollers located in a row between the raceways of the cup and cone, and a cage fitted to the rollers to maintain the correct spacing between the rollers and to retain the rollers around the cone in the absence of the cup, thus uniting the cone, rollers and cage into a cone assembly, said facility comprising: an enclosure containing a plurality of stations and being portable in the sense that it can be moved by a transport vehicle; means at one of the stations for inspecting the cone assembly; means at another of the stations for inspecting and repairing the raceway of the cup; means at still another station for opening the cage and releasing the rollers; means at yet another station for repairing the raceway of the cone; a spare cage in the enclosure for replacing an opened cage; and means at another station for closing a new cage about the rollers on the cone to retain the rollers on the cone and unite the cone assembly formed by cone, rollers, and new cage.

9. A portable facility according to claim 8 and further comprising means in the enclosure at another station for lubricating the cone assembly, means at still another

station for installing a seal into the cup, with the seal being configured to retain the cone assembly in the cup; and spare seals in the enclosure.

10. A portable facility according to claim 8 for reconditioning a bearing having two raceways in its cup, two cone assemblies, and a spacer between the cones, with the spacer being long enough to impart end play to the bearing; and further comprising means at yet another station for measuring the end play in the bearing.

11. A portable facility according to claim 8 wherein the enclosure has side walls; wherein the stations are located along the side walls; and wherein the enclosure contains an aisle that is located between the stations along each side wall.

12. A portable facility according to claim 8 and further comprising a deck adjacent to the enclosure and means on the deck for removing grease from the bearing.

19. A portable facility according to claim 1 wherein the bearing which is reconditioned at the facility has a cage within which the rolling elements are located, with the cage serving to maintain the proper spacing between the rolling elements and further holding the rollers around the raceway of the race when the race is removed from an opposing raceway; and wherein the enclosure contains means for opening the cage to release the rolling elements from the race and means for closing a cage around rolling elements to retain the rolling elements on the race.

20. A portable facility for reconditioning an antifriction bearing that was used on the journal of an axle for a railcar or locomotive and includes inner and outer races provided with opposed raceways, and rolling elements located between the races and along the raceways, said facility comprising:

an enclosure that is portable in the sense that it can be moved by a transport vehicle;

a washer containing a solution for removing grease from the races and rolling elements;

equipment within the enclosure for inspecting the races;

equipment within the enclosure for repairing the bearing; and

spare inner and outer races and rolling elements located within the enclosure to replace a damaged race or rolling element.

21. A portable facility according to claim 20 wherein the bearing has seals to establish fluid barriers at its ends, and the facility further comprises spare seals located within the enclosure for replacing the seals of the bearing.

22. A portable facility according to claim 20 wherein the equipment for inspecting the races includes a fixture which shines a light on the inner race to enable a workman to observe the raceway of the inner race.

23. A portable facility according to claim 20 wherein the equipment for inspecting the bearing includes a gauge that measures the diameter of a bore that extends through the inner race.

24. A portable facility according to claim 20 wherein the outer race is unitary and has two raceways which are inclined downwardly toward each other; wherein the inner race is on two separate components, each having a raceway that is presented toward a raceway of the outer race and is inclined in the same direction as the raceway toward which it is presented; wherein the rolling elements are arranged in two rows, there being a separate row around each raceway of the inner race; wherein the bearing

further includes a cage located around each component of the inner race for maintaining the proper spacing between the rolling elements and for holding the rolling elements around the component in the absence of the outer race; and wherein the facility further includes within the enclosure new cages to replace the cage of either component of the inner race; and wherein the equipment for repairing the bearing includes a press which will plastically deform the cage around either component of the inner race to free the rolling elements from that race and a press for plastically deforming a replacement cage around the component of the inner race to capture rolling elements about that component.

25. A portable facility according to claim 24 wherein the bearing further includes a spacer located between the components of the inner race and being long enough to impart the end play to the bearing; and wherein the facility further comprises a lateral measuring machine which rotates the inner race within the outer race, applies axially directed forces to the inner race in both axial directions, and measures the free motion between the inner and outer races resulting from the two directions of force.

26. A portable facility according to claim 20 wherein the equipment for repairing the bearing includes a hand-held grinder.

27. A portable facility according to claim 20 and further comprising a polishing tool.

28. A portable facility according to claim 27 and further comprising an air-conditioning unit supported on the enclosure and including a dust extraction system.

29. A portable facility according to claim 20 wherein the enclosure is mounted on a railcar.

IX EVIDENCE APPENDIX

1. Declaration of Samuel R. Williams dated January 2, 2003.

2. Declaration of Rudolf Karich dated July 1, 2005.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: J. H. Labuschagne GROUP: 3637

SERIAL NO.: 09/819,194 EXAMINER: Phi Dieu N Tran A

FILED: March 28, 2001 DOCKET NO.: TIMK 7938US

FOR: **PORTABLE FACILITY AND PROCESS FOR RECONDITIONING ANTI FRICTION BEARINGS**

Commissioner for Patents
Washington, D.C. 20231

DECLARATION UNDER 35 CFR 1.132

Samuel R. Williams declares as follows:

1. I reside in Dublin, Ohio, which is a suburb of Columbus, Ohio, where The Timken Company for many years operated a facility at which it designed and manufactured tapered roller bearings for use on rail cars and locomotives. In 2002 I retired from Timken after having worked 45 years for the company.

2. I hold a bachelor of science degree in mechanical engineering (B.M.E.) from Georgia Institute of Technology (Georgia Tech) in Atlanta, Georgia, and a master of science degree in mechanical engineering (M.S.M.E.) from Case Western Reserve University in Cleveland, Ohio.

3. From 1981 until my retirement in 2002 I worked for Timken as its Chief Engineer--Railroad Bearings. In that capacity I supervised other engineers and draftsmen in connection with the design of railroad bearings and applications

for them. I also provided technical support to sales and service employees of Timken and likewise to the customers of Timken, all in the field of railroad bearings.

4. I have reviewed the U.S. patent application 09/819,194 for the invention of Jan Labuschagne entitled "Portable Facility and Process for Reconditioning Antifriction Bearings". I have also studied the Patent Office action of October 22, 2002 in that application. I understand that the Patent Office examiner contends that there are no differences between the portable facility described in the claims of the patent application and the Mobile Band Instrument Repair Shop disclosed in U.S. patent 4,643,476 (Montgerard) which I have also reviewed. I disagree, but this seems to be a matter of semantics which I leave to others to resolve.

5. I do, however, offer some comments on the issue of obviousness – that is to say, whether or not the portable facility for reconditioning bearings as set forth in the claims of U.S. patent application 09/819,194 is obvious from a consideration of the Montgerard patent. In my opinion, it is not.

6. The patent application pertains to the reconditioning of antifriction bearings, and I note that claim 1 does indeed refer to a portable facility for reconditioning an antifriction bearing, while claim 8 refers to a portable facility for reconditioning a tapered roller bearing. An antifriction bearing in its broadest sense, to me, means a bearing having races and rolling elements between its races, so that one race can rotated relative to the other race with minimal friction. A tapered roller bearing represents one type of antifriction bearing – one in which

the rolling elements are tapered rollers. To my knowledge brass and woodwind musical instruments – the type of instruments which the repair shop of the Montgerard patent is designed to repair – do not contain antifriction bearings.

7. In my opinion, one seeking to design a portable facility for reconditioning antifriction bearings, much less tapered roller bearings, would not turn to a mobile band instrument repair shop for inspiration. Antifriction bearings and band instruments are unrelated technologies. I do not see band instruments or repair facilities for them in the field of endeavor for one seeking to develop a repair facility for antifriction bearings. The equipment to which the repair facilities pertain and that which they repair are too divergent. For the same reasons I do not believe that a repair facility for repairing band instruments would logically commend itself to the attention of one considering the repair of antifriction bearings.

8. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. These statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Samuel R. Williams

Samuel R. Williams

Dublin, Ohio

January 2, 2003

X RELATED PROCEEDING APPENDIX

None.

Appl. No.	:	09/819,194
Applicant	:	J.H. Labuschange
Filed	:	March 28, 2001
Title	:	PORTABLE FACILITY AND PROCESS FOR RECONDITIONING ANTI FRICTION BEARINGS
TC/A.U.	:	3637
Examiner	:	Phi Dieu Tran A
Docket No.	:	TIMK 7938US

Mail Stop AMENDMENT – NO FEE
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

DECLARATION OF RUDOLF KARICH
UNDER 37 CFR 1.132

Rudolph Karich declares as follows:

1. I reside in Mascot, Tennessee, where I am employed by The Timken Company as Vice President of Sales and Marketing for Industrial Rail and Rail Bearing Service, as subsidiary of The Timken Company. Rail Bearing Service reconditions or remanufactures tapered roller bearings used on the journals of railcar and locomotive axles. Basically, Rail Bearing Service disassembles used roller bearings, cleans them, inspects them, refinishes critical surfaces if necessary, replaces damaged components, reassembles the bearings, lubricates them and sells them.

2. Since 1967 my career has in one way or another involved antifriction bearings, particularly tapered roller bearings for railroad cars and locomotives. I began in 1967 as an engineer for the Railroad Division of The Timken Company, at that time a manufacturer of a wide variety of tapered roller bearings. In 1977 I became a regional

Manager for Rail Bearing Services, Inc., a company that reconditioned and remanufactured railroad bearings. At the time, the company was an authorized re-manufacturer of Timken railroad bearings. In 1995 The Timken Company acquired Rail Bearing Service, Inc, and I again entered the employ of Timken. My current responsibilities as Vice President of Timken Company Rail group include sales and marketing for both new bearing assemblies and reconditioning services.

3. I hold a Bachelors degree in Mechanical Engineering from Ohio University, having been awarded that degree in 1967.

4. I have reviewed and studied the following papers which pertain to U.S. patent application 09/819,194:

a. the application itself as filed on March 28, 2001

b. Amendment F filed January 1, 2005

c. communication from U.S. Patent Office dated April 21, 2005

d. U.S. patent 3,308,845 (Bellas)

5. I understand that the claims set forth in Amendment F describe a portable facility for reconditioning antifriction bearings, and that the portable facility so described must be different from a previous device, irrespective of whether or not it is used to recondition bearings, and secondly that it cannot be obvious in view of prior devices and procedures. Indeed, I understand that obviousness or the lack of it must be considered from the perspective of one having ordinary skill in the art to which the subject matter of an invention pertains – in this application from the standpoint of having ordinary skill

In the manufacture and reconditioning of antifriction bearings. Such a person, in my opinion, would have a technical degree from a university, particularly a degree in one of the mechanical disciplines, would be familiar with how antifriction bearings operate, and would have several years experience in reconditioning antifriction bearings. I believe that I possess at least ordinary skill in the art of reconditioning antifriction bearings, if not extraordinary skill.

6. The Bellas patent pertains to a mobile facility for repairing automobiles – in effect a "Mobile Services Station Unit" as the title of the patent states. The unit provides services corresponding to those offered by the ordinary service station, such as oil changes, lubrication and minor repairs. It does not totally disassemble automobiles and rebuild them.

7. In my opinion one having ordinary skill in the art of reconditioning antifriction bearings would not turn to a mobile service station for inspiration to improve antifriction bearings or the reconditioning of them. Automotive service stations and the manufacture and recondition of bearings are unrelated fields of endeavor. Futhermore the service station of the Bellas patent only performs minor repairs, whereas the portable facility of patent application 09/819,194 is used to recondition bearings, which involves total disassembly of the bearings and remanufacture them.

8. In my opinion, the portable facility described in the claims set forth in Amendment F would not be obvious to one of ordinary skill in the art of manufacturing and reconditioning antifriction bearings.

9. All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. These statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of application of 09/819,194 or any patent issuing thereon.

Rudolph Karich

Mascot, Tennessee

July 1, 2005

X RELATED PROCEEDING APPENDIX

None.